

## ABSTRACT OF THE DISCLOSURE

Described herein is a method for transmitting data on a bus with minimization of the bus switching activity, comprising the steps of converting the datum to be transmitted from its own original format to a transmission format that minimizes the switching activity on the bus, said conversion consisting in swapping the position of one or more bits of the datum to be transmitted, the swapping being performable according to a plurality of different variants, each of which is identified by a respective sorting pattern, and selecting, between the various sorting patterns, an optimal sorting pattern that minimizes the bus switching activity upon transmission on the bus of the datum generated using said optimal sorting pattern.